UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
08/924,497	08/27/97	SOKOLOV	OLE-001C3

EXAMINER: O

ART UNIT: 2876 | PAPER NUMBER: 53

DATE MAILED: 09/29/98

MM51/0929

ATTN THOMAS J ENGELLENNER
LAHIVE & COCKFIELD
28 STATE STREET
BOSTON MA 02109

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 7/6/98

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 46-60 is/are pending in the application.
Of the above, claim(s) _____ is/are withdrawn from consideration.
☐ Claim(s) _____ is/are allowed.
☒ Claim(s) 46-60 is/are rejected.
☐ Claim(s) _____ is/are objected to.
☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
☐ The specification is objected to by the Examiner.
☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.
☐ received in Application No. (Series Code/Serial Number) _____.
☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of Reference Cited, PTO-892
☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
☐ Interview Summary, PTO-413
☐ Notice of Draftperson's Patent Drawing Review, PTO-948
☐ Notice of Informal Patent Application, PTO-152

--SEE OFFICE ACTION ON THE FOLLOWING PAGES--

★ U.S. GPO: 1998-421-632/40208

Claims 55, 56 and 59 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 56 and 59 and lines 13-19 of claim 55 are not meaningful since no means for moving the grid are recited. There is no antecedent basis for "the direction of movement" in claim 55.

The following is a quotation of the first paragraph of 35 U.S.C. § 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification is objected to under 35 U.S.C. § 112, first paragraph, as failing to support the invention as now claimed. There is no teaching in the original disclosure that the diagonals of the cells must not be parallel or perpendicular to the longitudinal side of the grid. Furthermore there is no teaching of how to fabricate a functional flat focussed grid that may be moved in a direction parallel to its longitudinal side. If a flat focussed grid is moved along a path that is parallel to its longitudinal side, it will be out of focus with respect to the x-ray source most of the time and will block all or most of the primary x-rays making it impossible to obtain a useful image.

Claims 46-51, 53-56, 59 and 60 are rejected under 35 U.S.C.

§ 112, first paragraph, for the reasons set forth in the objection to the specification.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 46-49, 52, 53, 55 and 57-60 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Caldwell.

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claim 54 is rejected under 35 U.S.C. § 103 as being unpatentable over Caldwell. Caldwell teaches a reciprocating antiscatter grid comprising a frame 28 and cells formed by x-ray

opaque partitions 29 which are angled with respect to the sides of the grid and direction of motion so as to eliminate shadows of the partitions in the final image and which may either be parallel to one another or focussed on the x-ray source. See lines 27-35 of page 2 and 103-108 of page 3. Caldwell's cells are filled with air as no means are provided to keep it out, but it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ evacuated cells in order to reduce x-ray scatter and absorption.

Claims 50 and 51 are rejected under 35 U.S.C. § 103 as being unpatentable over Caldwell in view of Millenaar. Caldwell fails to teach the use of cover plates on the end faces of his grid, but this was a common practice as shown by Millenaar, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the Caldwell grid with such covers to protect it.

Claim 56 is rejected under 35 U.S.C. § 103 as being unpatentable over Caldwell in view of Mattsson cited by applicant. Caldwell teaches a reciprocating antiscatter grid comprising a frame 28 and cells formed by x-ray opaque partitions 29 which are angled with respect to the sides of the grid and direction of motion so as to eliminate shadows of the partitions in the final image. See lines 27-35 of page 2 and 103-108 of page 3. It would have been obvious to one of ordinary skill in the art at the time the invention was made to fabricate the Caldwell grid with

partitions angled as taught by Mattsson in order to maximize performance as explained by Mattsson.

Claims 47-53, 55 and 57-60 are rejected under 35 U.S.C. § 102(c) as being clearly anticipated by Liebert et al. Liebert teaches flat focussed and unfocussed x-ray grids comprising covers 20 and partitions 21 forming air filled cells 22. The cells may have a honeycomb shape (figure 3c) in which the partitions would not be perpendicular or parallel to one of the grid sides.

Claim 54 is rejected under 35 U.S.C. § 103 as being unpatentable over Liebert. Liebert's cells are filled with air, but it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ evacuated cells in order to reduce x-ray scatter and absorption.

Claims 46-60 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of copending application Serial No. 863,176. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a *provisional* obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The obviousness-type double patenting rejection is a judicially established doctrine based upon public policy and is primarily intended to prevent prolongation of the patent term by prohibiting claims in a second patent not patentably distinct from claims in a first patent. *In re Vogel*, 164 USPQ 619 (CCPA 1970). A timely filed terminal disclaimer in compliance with 37 C.F.R. § 1.321(b) would overcome an actual or provisional rejection on this ground provided the conflicting application or patent is shown

to be commonly owned with this application. See 37 C.F.R. § 1.78(d).

Applicant's arguments filed july 6, 1998 have been fully considered but they are not deemed to be persuasive. As noted above the disclosure does not support claims to a fla focussed grid moved along a path that is parallel to its longitudinal side, since it would be out of focus with respect to the x-ray source most of the time and would block all or most of the primary x-rays making it impossible to obtain a useful image. It is also recognized that the Mattsson angles and the limitation of the sides and diagonals not being parallel or perpendicular to the longitudinal side of the grid is meaningful only if the grid is moved.

Applicant fails to argue the patentability of claims 57-60.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication should be directed to Examiner Church at telephone number (703) 308-4861.

Craig E Church

CRAIG E. CHURCH
Senior Examiner
ART UNIT 2876